

INTERNATIONAL SEARCH REPORT

International Application No
PCT/IB2004/051798

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 H01J61/12 H01J61/70

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H01J

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X A	EP 0 762 476 A (MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD) 12 March 1997 (1997-03-12) page 7, line 13 - line 27	1,2,6,7, 11 3-5, 8-10,12
X A	US 4 710 679 A (BUDINGER ET AL) 1 December 1987 (1987-12-01) column 3, line 1 - line 11 column 3, line 43 - line 51 column 4, line 16 - line 20 figures 1,2	1,2,6, 8-11 2-5,7,12
X	US 3 521 111 A (MICHIIHIRO TSUCHIHASHI ET AL) 21 July 1970 (1970-07-21) column 2, line 44 - column 3, line 8 -/--	1,2,6,8, 9,11

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents :

'A' document defining the general state of the art which is not considered to be of particular relevance

'E' earlier document but published on or after the international filing date

'L' document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

'O' document referring to an oral disclosure, use, exhibition or other means

'P' document published prior to the international filing date but later than the priority date claimed

'T' later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

'X' document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

'Y' document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

'&' document member of the same patent family

Date of the actual completion of the international search

3 March 2005

Date of mailing of the international search report

14/03/2005

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax (+31-70) 340-3016

Authorized officer

Zuccatti, S

INTERNATIONAL SEARCH REPORT

International Application No
PCT/IB2004/051798

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 02/21571 A (TAEWON ELETRONIC CO., LTD; KIM, JIN-JOONG) 14 March 2002 (2002-03-14) page 3, line 21 - line 25; figures 3,4 -----	5
X	DE 196 13 468 A1 (WEDECO UMWELTECHNOLOGIE WASSER-BODEN-LUFT GMBH, 40472 DUESSELDORF, DE) 10 October 1996 (1996-10-10) the whole document -----	12
X	US 6 208 069 B1 (JÜSTEL ET AL) 27 March 2001 (2001-03-27) the whole document -----	12

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/IB2004/051798

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
EP 0762476	A	12-03-1997	CN 1149755 A ,C	14-05-1997
			DE 69610960 D1	21-12-2000
			DE 69610960 T2	22-03-2001
			EP 0762476 A1	12-03-1997
			JP 3196649 B2	06-08-2001
			JP 9120800 A	06-05-1997
			TW 412057 Y	11-11-2000
			US 5864210 A	26-01-1999
US 4710679	A	01-12-1987	NONE	
US 3521111	A	21-07-1970	NONE	
WO 0221571	A	14-03-2002	KR 2002016323 A	04-03-2002
			AU 6280501 A	22-03-2002
			CN 1447979 A	08-10-2003
			JP 2004508684 T	18-03-2004
			WO 0221571 A1	14-03-2002
			US 2003168982 A1	11-09-2003
DE 19613468	A1	10-10-1996	WO 9631902 A1	10-10-1996
			EP 0764341 A1	26-03-1997
			JP 10505197 T	19-05-1998
US 6208069	B1	27-03-2001	CN 1248282 A	22-03-2000
			DE 69818785 D1	13-11-2003
			DE 69818785 T2	29-07-2004
			EP 0924746 A1	23-06-1999
			EP 0970160 A1	12-01-2000
			WO 9932575 A1	01-07-1999
			JP 2001512528 T	21-08-2001
			US 6184618 B1	06-02-2001